

# ArgoNeuT Status

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# Update

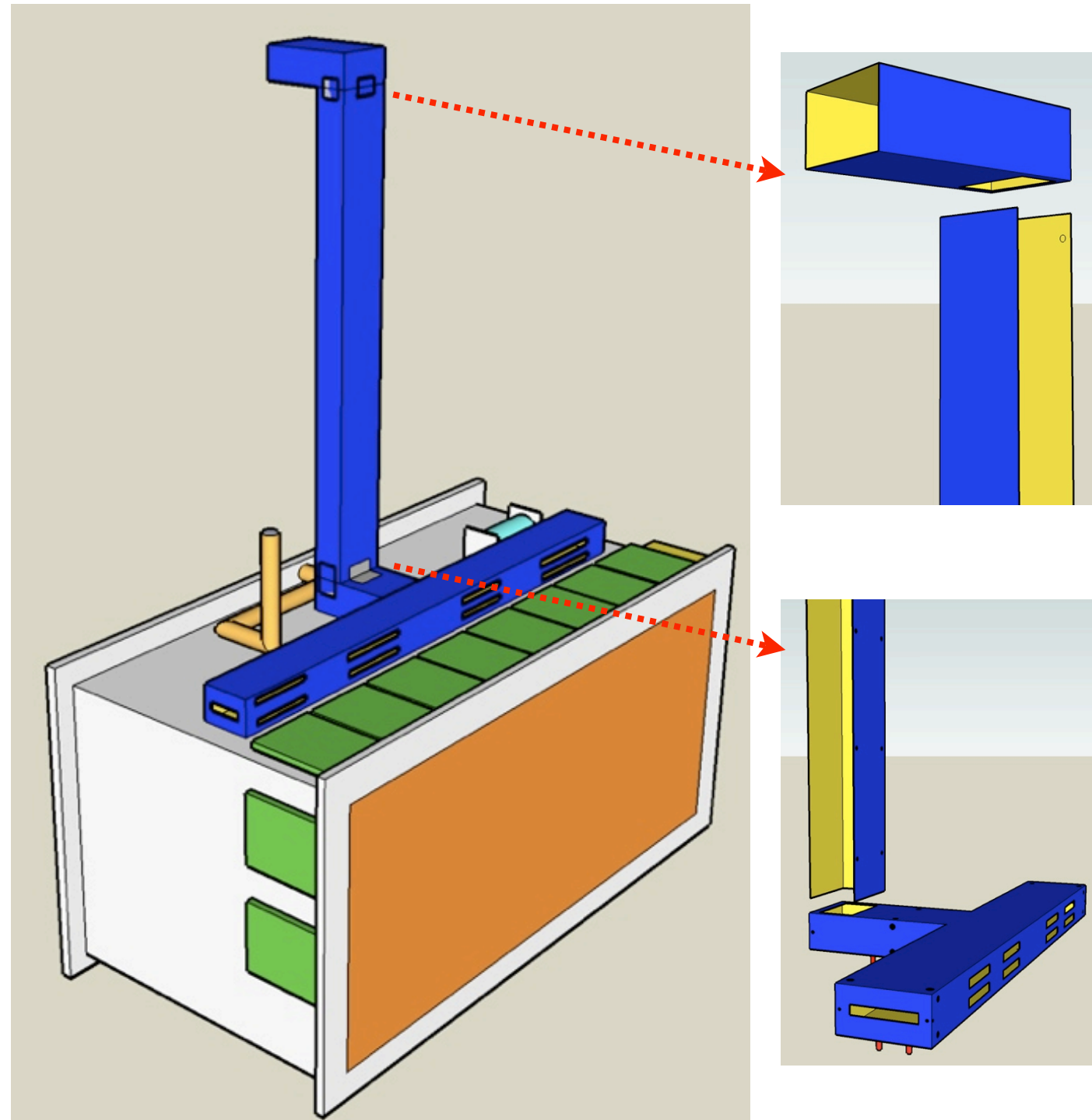
- TPC, Electronics box, signal flange+pipe, etc... removed from cryostat.
- Some slow-control equipment tests performed.
- Working on improving TPC readout cable handling.
- Discussion of Scintillator paddles ongoing....

# Slow-Control Work

- Dunked TE-12 and TE-13 (top/bottom of cryostat) in liquid nitrogen.
- Observed offsets of 3K and 13K (one is Type T, one is Type K).
- Offsets created by Beckhoff module not being calibrated below 100° C (i.e. - shouldn't have used it for cryo. temps)
- Options:
  - ▶ Add calibration factor so we get reasonable readings below 100° C
  - ▶ Buy "conditioner" module to tweak the signals before they go into the Beckhoff.
  - ▶ Buy new temperature devices (RTDs) and reconfigure Beckhoff.
- Dan Markley added calibration factor to TE-12 and TE-13 that kicks in below 100° C.
- Re-dunked these and got expected 77K reading.
- Chuck removed all slow-control wires from the experiment and prepared them for move.

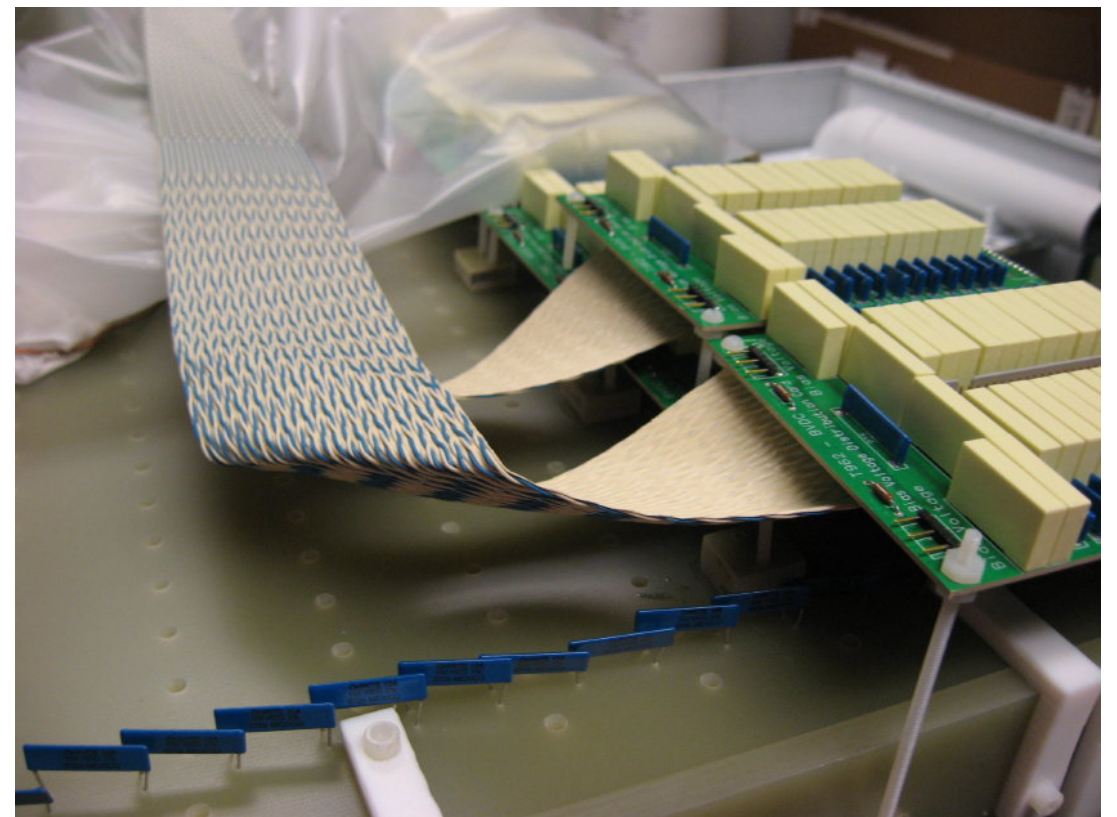
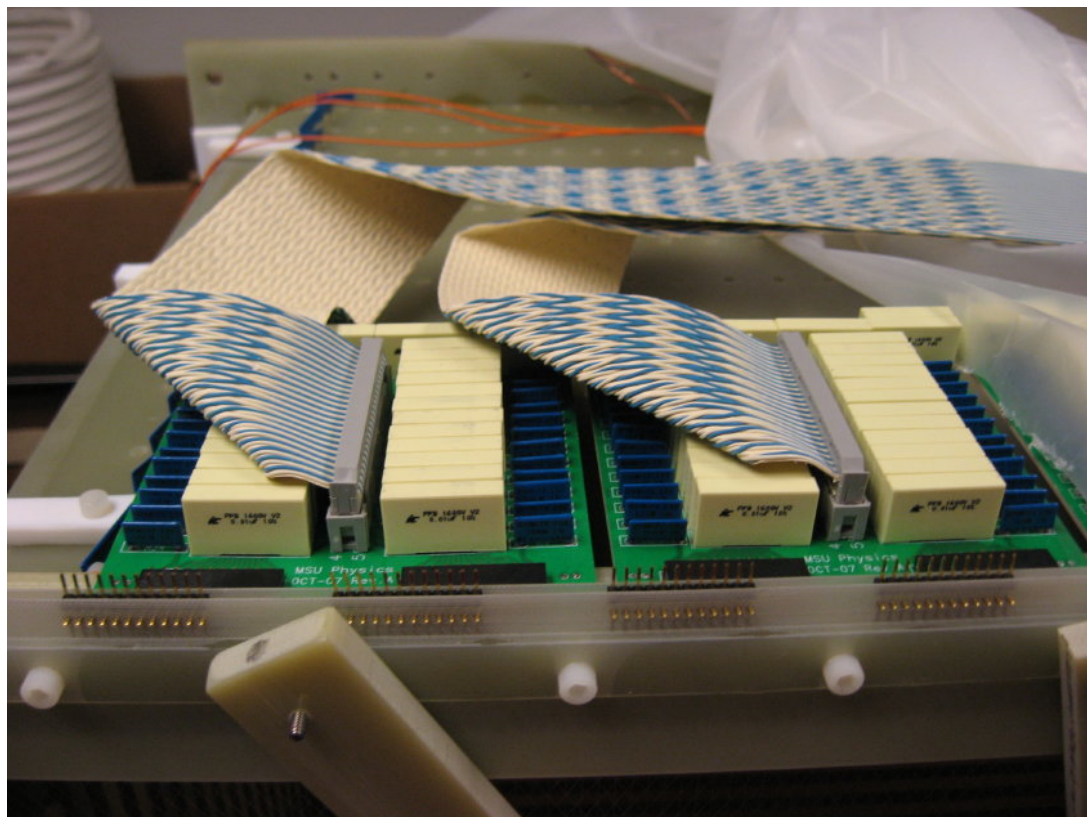
# TPC Cable Tray

- Preliminary design for G10 cable tray.
- Copper-clad G10 (1/16" thick) ordered....ships Friday.
- Jim S. at Lab 8 will fabricate the parts (provided some drawings).
- Tray is designed such that we no longer need pipe welded to signal flange.
- Will firmly connect tray to "flag" welded to inside of signal flange.
- Will have "tie-down" points inside of tray so cable bundle is controlled.



# Cable Routing Solution?

- Need to do a better job of routing cables all the way from BVDC to feedthrough.
- Main problem is how to merge readout cables from induction/collection BVDCs without creating a mess, and without mixing induction/collection signals on a given readout cable.
- Cable tray will help contain cables...but it doesn't guarantee a clean bundle.
- If we add some 90° crimps to the cables, a possible solution appears....
- Any dangers with treating the cables in this manner (Dan/Carl)?



# Plan

- Begin removing unistrut/filters (today)...test Andrew's new vacuum jackets first.
- Finish drawings of TPC cable tray...get everything to Lab 8 soon.
- Take new cable parts to Curt for assembly.
- Order/borrow new fibers for purity monitor.
- "Problem": Josh and I will both be gone for the latter half of October due to weddings/honeymoons....